Gymkhana

The XVIIIth Zagreb Gymnasium and four other schools from Italy, Spain, Latvia and Finland participated in an international Erasmus+ project called European Active Citizenship. The project covered four important topics included in the European Commission's document Europe 2020: environment and renewable energy, child poverty prevention, immigration and integration, and poverty and social exclusion. The first big mobility activity and an opportunity for participating students to get to know each other and to connect better took place in Zagreb, with our school as the host.

The main event of this mobility was a game called Gymkhana. It is a game of orientation, testing facts on project topics and using mathematical skills. Participants were divided into nine groups and each group consisted of Italian, Finnish, Spanish, Latvian and Croatian students. Groups were handed lists of questions and a map of the centre of Zagreb. The answers to these questions were locations the students needed to visit: the main train station, St. Mark's Square, the church of St. Francis and the Technical Museum. Everyone wanted to win, they did not even mind the Croatian national television team wanting to do an interview, although they were slowing them down, so maybe someone else wins!

To determine a location, students needed to answer groups of questions, two questions per group; the answer to the first question was a letter, while the answer to the second one was a number. The first question was about the host city, while the second one was mathematical, but related to facts about Croatia, the host country. The city map was divided into squares using a matrix, and the squares were defined with two coordinates, where

Fig. 1. One of the groups on a quest for a site (source: Večernji list)
Slika 1. Jedna od grupa u potrazi za lokacijom (izvor fotografije: Večernji list)

the horizontal was a number, and the vertical was a letter. The letter-number combination the students discovered answering the questions defined a square in the map. Each of the squares has a maximum of one destination in red, so the students knew exactly where to go once they determined the square.

One of the questions for the coordinates was:

- The first letter of Zagreb's major church.
- The height of the towers of this building is 108 meters, the building is approximately 78 meters long and its width is 40 meters. Calculate the area of the building, divide the number by 780 and add 3.

The answer is C7, so the students should have sought the location of St. Francis' church, which is indicated in red in the square with coordinates C7. Once at the location, there was a stand with posters the project participants prepared. For example, at the St. Francis' church there were questions about child poverty, at the Technical Museum there were questions about renewable energy, the main train station was reserved for questions about migrations, and St. Mark's Square featured questions about youth unemployment. The posters contained a lot of information about topics discussed in the project. Questions were prepared based on graphs, tables and reports in the posters and handed to competitors at the stands. The hosts at the stands had a lot to do: in addition to collecting answers, they also needed to explain passers-by what was happening, as well as fighting with strong wind threatening to topple the stands.

All the groups were quite successful, competitors found the locations and got to know Zagreb, and participants who answered the most questions correctly received rewards.

Tamara Rabuzin ■

Gymkhana

Zagrebačka XVIII. gimnazija, zajedno s još četiri škole iz Italije, Španjolske, Latvije i Finske, sudjeluje u međunarodnom Erasmus+ projektu European Active Citizenship. Taj projekt obuhvaća četiri aktualne teme vezane uz dokument Europske komisije Europa 2020: okoliš i obnovljivi izvori energije, suzbijanje siromaštva kod djece, migracije i integracije te nezaposlenost mladih. Prvo veliko putovanje u okviru projekta i prilika za učenike sudionike da se upoznaju i povežu pružila se upravo u Zagrebu, a domaćin je bila naša XVIII. gimnazija.

Središnji događaj susreta bila je igra snalaženja u prostoru, provjeravanja znanja o temama projekta i upotrebe matematičkih vještina pod imenom Gymkhana. Učenici su bili podijeljeni u devet mješovitih talijansko-finsko-španjolsko-latvijsko-hrvatskih grupa te dobili papire sa zadacima i kartu središta Zagreba. Rješenja zadataka otkrivaju lokacije koje moraju posjetiti u gradu. To su Glavni kolodvor, Markov trg, Franjevačka crkva i Tehnički muzej. Svi žele pobijediti, ne smeta im čak ni ekipa Hrvatske televizije koja ih želi intervjuirati, iako im oduzima vrijeme, pa možda pobijedi netko drugi!

Da bi odredili svaku od lokacija, učenici moraju odgovoriti na četiri skupine od po dva pitanja; odgovor na prvo pitanje je slovo, a na drugo broj. Prvo pitanje provjerava znanje o gradu domaćinu, a drugo je matematičke prirode, ali povezano s činjenicama o Hrvatskoj, zemlji domaćinu. Karta grada koju su učenici dobili podijeljena je pomoću mreže na kvadrate koji su određeni s pomoću dvije koordinate (apscisa brojem, a ordinata slovom). Dobivena kombinacija slova i broja određuje jedan kvadrat na karti. U svakom od kvadrata crvenom bojom je označena najviše jedna znamenitost, kako bi učenici točno znali kamo moraju stići kad odrede kvadrat.

Primjer pitanja za jednu od koordinata:

Fig. 2. Answering questions at the stand next to the Technical Museum
Slika 2. Odgovaranje na pitanja na štandu kod Tehničkog muzeja

Fig. 3. Interview for the Croatian national television
Slika 3. Intervju za Hrvatsku televiziju

- Prvo slovo najznačajnije crkve u Zagrebu
- Visina tornjeva ove zgrade je 108 metara, zgrada je dugačka približno 78 metara i široka 40 metara. Izračunajte površinu tlocrta zgrade, podijelite taj broj sa 780 i dodajte 3.

Rješenje je C7, pa se učenici trebaju uputiti prema znamenitosti koja je u području C7 označena crvenom bojom, crkvi Sv. Franje. Na navedenoj lokaciji nalazi se štand s plakatima koje su pripremili učenici sudionici projekta. Na primjer, kod crkve Sv. Franje su plakati s pitanjima o siromaštvu kod djece, Tehnički muzej čuva pitanja o obnovljivim izvorima energije, Glavni kolodvor rezerviran je za migracije, a Markov trg za nezaposlenost mladih. Na plakatima je mnoštvo informacija o temama koje se obrađuju u projektu, a na temelju grafova, tablica i izvještaja s plakata pripremljeni su zadatci za natjecatelje. Papire sa zadatcima učenici dobivaju na svakom od štandova. Domaćini na štandovima imaju pune ruke posla ne samo prikupljajući odgovore natjecatelja, nego i objašnjavajući prolaznicima o čemu je riječ, a i boreći se s vjetrom da im ne sruši štand.

Sve grupe bile su prilično uspješne, natjecatelji su pronašli lokacije, a pritom i upoznali Zagreb, dok su pobjednici koji su točno odgovorili na najviše pitanja, dobili i prigodne nagrade.

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